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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/582,771	08/29/2000	Norbert W. Quast	DB000852-000	2847

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EXAMINER	
HOANG, PHUONG N	
ART UNIT	**PAPER NUMBER**
2126	

DATE MAILED: 10/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/582,771	QUAST, NORBERT W.	
	Examiner	Art Unit	
	Phuong N. Hoang	2126	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 August 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1 - 16* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1 - 16* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1 – 16 are pending for examination.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1 – 16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

a. The following terms lack proper antecedent basis:

i. the components, said several components – claim 10;

b. The claim language in the following claims is not clearly understood:

ii. As to claim 1, at lines 6 – 8, it is not clearly understood what "data acquisition, by means of the running time system, of data of a second component into said first component" means (i.e., is data acquisition of the second component calls the first component); at lines 8 – 11, it is not clearly understood what "data disposal, by means of the running time system, of data of said first component into said second component" means (i.e., is data disposal of the first component calls the second component).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 1, 3 – 6, and 8 – 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Purtilo "Improving Module reuse by interface adaptation" p. 208 – 217 in view of Srivastava, US patent no. 6,473,768.

6. Purtilo was cited in the last office action.

7. **As to claim 1,** Purtilo teaches a program flow method in a program component system, comprising a running time system (system can create an execution-time module, p. 208 col. 2 paragraph 1) and several components (components, p. 210 col. 2 paragraph 3), each having one program portion, the method comprising the steps of:

a) data acquisition (calling module, p. 210 paragraph 4) by means of the running time system (runtime, page 208, col. 1 last paragraph), of data of a second component into the first component.

b) data disposal (called module, p. 210 paragraph 1), by means of the running time system, of data of the first component into the second component.

Purtilo teaches first and second components programmer-defined interfaces.

However, Purtilo does not explicitly teach first and second components without any need for programmer-defined interfaces.

Srivastava teaches components calling without any need for programmer-defined interfaces (add new components with interfaces at runtime, see abstract and col. 3 lines 55 – col. 4 lines 19, col. 5 lines 15 – 67, and col. 7 lines 30 – col. 8 lines 50).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Purtilo and Srivasta's because Srivastava's creating new component with interfaces at runtime would provide the ability to handle more interfaces or components to the calling or called components without pre-defined interfaces, and so the system can handle more flexible data requests.

8. **As to claim 3 and 4,** Srivastava teaches the step of data acquisition and/or data disposal is carried out without the cooperation of the second component when the new interface is not needed (no need to add new components and interfaces, col. 3 lines 55 – col. 4 lines 19, col. 5 lines 15 – 67, and col. 7 lines 30 – col. 8 lines 50).

9. **As to claim 5,** Srivastava teaches the step of data is kept in a region (col. 5 lines 15 - 25).

10. **As to claims 6 and 8,** Purito teaches the steps of directly access data region local and /or non-persistent data (page 209, col. 2 last paragraph).

11. **As to claim 9,** Purtilo teaches docking point (annotated actual parameter list is provided, p. 210 col. 2 paragraph 5).

12. **As to claim 10,** Purtilo teaches the steps of:

a) docking points (annotated actual parameter list is provided, p. 210 col. 2 paragraph 5) corresponding to an inheritance parameter;

b) modifying the components where at least one docking point was found by entering call information (the annotated actual parameter list is provided so that the programmer can pick and choose, p. 210 col. 1 section 2.1 and col. 2 paragraph 5) at each docking point found.

Puritlo does not explicitly teach inheritance parameter determined by a definition of the further component, and wherein the expansion of the program component system is completed without any need for programmer-defined expansion interfaces in the several components.

However, Purtilo teaches the annotated parameter list having components describing the number, order, and type of argument (page. 10 section 2.1).

Srivastava teaches inheritances (Java provides inheritances, abstract), and the expansion of the program component system is completed without any need for programmer-defined expansion interfaces in the several components (add new components with new interfaces at runtime, abstract and col.3 lines 55 – col. 4 lines 19, col. 5 lines 15 – 67, and col. 7 lines 30 – col. 8 lines 50).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Purtilo and Srivastava's because Srivastava's creating new components and interfaces at runtime would provide the ability to handle more interfaces or components to the calling or called components without pre-defined interfaces, and so the system can handle more flexible data requests.

13. **As to claim 11,** Purtilo teaches all interaction interfaces (actual interface pattern, p. 210 col. 2 paragraph 5).

14. **As to claim 12,** Purtio teaches the steps of data fields are predefined as potential docking points (parameter list are predefined as can be annotated, p. 210 col. 2 paragraph 5).

15. **As to claim 13,** Purtilo teaches entering said call information into the docking point (the annotated actual parameter is used for entering information, p. 210 col. 2 paragraph 5).

16. **As to claims 14 and 15,** Srivatava teaches the step of generating at lease one binary object (generate Java byte-code objects, col. 1 lines 55 – 65 and col. 2 lines 37 - 45) from the definition of the further component.

17. Claims 2 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Purtilo "Improving Module resue by interface adaptation" p. 208 – 217 in view of Srivastava, US patent no. 6,473,768, and further in view of Craze US patent no. 5,809,564.

18. Craze was cited in the last office action.

19. **As to claim 2,** Purtilo and Srivastava do not teach the steps of the data transmitted during the data acquisition are transferred from a memory image portion of the second component into a transfer data region of the first component.

Craze teaches the data transmitted during the data acquisition are transferred from a memory image portion (the return address identifies the location in the application heap where the CPU should continue processing when the called function returns to the calling function, col. 4 lines 1 – 20) of the second component into a transfer data region of the first component.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Purtilo, Srivastava, and Craze's because Craze's transferring data between heap in the stack without moving data out of the region would speeds up the process and quickly provide the data as requested.

20. **As to claim 7,** Craze teaches a waiting list (stack, col. 4 lines 1 – 15).

21. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Purtilo "Improving Module resue by interface adaptation" p. 208 – 217 in view of Srivastava, US patent no. 6,473,768, and further in view of Nilsen, US patent no. 6,438,573.

22. **As to claim 16,** Purtilo and Srivastava do not explicitly teach the step of while generating each binary object, the memory allocation is considered in the one component of the program component system.

Nilsen teaches the step of generating each binary object, the memory allocation (allocatableBytes(), col. 21 lines 10 – col. 12 lines 18) is considered in the one component of the program component system.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Purtilo, Srivastava, and Nilsen's system because Nilsen's allocating memory would be necessary to provide memory as needed to run the new interfaces.

Response to Arguments

23. Applicant's arguments, filed on 08/18/04, have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

24. The prior art made of record but not relied upon request is considered to be pertinent to applicant's disclosure.

Schofield, US patent no. 6,321,273, demonstrating a method for converting interfaces into platform independent format.

25. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phuong N. Hoang whose telephone number is (571)272-3763. The examiner can normally be reached on Monday - Friday 9:00 am to 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on (571)272-3756. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MENG-AL T. AN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100

Ph
October 8, 2004